

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method of managing events in a standard computer system comprising a central unit ~~(10)~~ connected to memory units ~~(20)~~ and peripheral devices ~~(30, 40)~~ by a data bus ~~(50)~~ allowing a multimaster configuration, the method comprising the following steps:

- receiving events,
- time-stamping and storing the events,
- assigning at least one appropriate action to each received event, and

- executing that action in response to the received event,

which method is characterized in that the above-mentioned management steps are carried out in real time without access to the central unit ~~(10)~~ by a management unit ~~(70)~~ included in an independent management module ~~(60)~~ connected to the data bus ~~(50)~~ and incorporated into the standard computer system.

2. (CURRENTLY AMENDED) A management method according to claim 1, characterized in that each event received is stored in a first memory ~~(73)~~ associated with the management unit ~~(70)~~.

3. (CURRENTLY AMENDED) A management method according to ~~either claim 1 or claim 2~~, characterized in that the timescale of real-time management is of the order of one microsecond.

4. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 3~~, characterized in that the independent management module ~~(60)~~ is isolated from the central unit ~~(10)~~ by

a bridge-(57).

5. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 4~~, characterized in that said action is read in a table of actions associated with the management unit ~~(70)~~ and is preprogrammed via the data bus ~~(50)~~.

6. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 5~~, characterized in that events received by the management unit ~~(70)~~ are time-stamped to an accuracy of the order of 100 nanoseconds and stored in a second memory ~~(74)~~ associated with the management unit ~~(70)~~ so that these events may be read via the data bus ~~(50)~~ in order to store and monitor these events.

7. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 6~~, characterized in that events received by the management unit ~~(70)~~ are generated by a clock register ~~(64, 65)~~ internal to the management module ~~(60)~~.

8. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 6~~, characterized in that events received by the management unit ~~(70)~~ come from a unit ~~(89)~~ adjacent the management module ~~(60)~~.

9. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 6~~, characterized in that events received by the management unit ~~(70)~~ come from an equipment ~~(87)~~ external to the computer system.

10. (CURRENTLY AMENDED) A management method according to ~~either claim 8 or claim 9~~, characterized in that events received by the management unit ~~(70)~~ are synchronized to a frequency corresponding to that of a clock internal to the computer system.

11. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 9~~, characterized in that events received from the external equipment ~~(87)~~ are filtered to eliminate interference.

12. (CURRENTLY AMENDED) A management method according to ~~any one of claims 1 to 11~~, characterized in that the management unit ~~(70)~~ generates an interrupt if it is not possible to associate an event with an action.

13. (CURRENTLY AMENDED) Event management module incorporated into a standard computer system comprising a central unit ~~(10)~~ connected to memory units ~~(20)~~ and peripheral devices ~~(30, 40)~~ by a data bus ~~(50)~~ allowing a multimaster configuration, which module is characterized in that it comprises:

- an independent management unit ~~(70)~~ connected to the central unit ~~(10)~~ via an interface ~~(63)~~ and the data bus ~~(50)~~, said management unit ~~(70)~~ being adapted to receive and process events in real time without intervention by the central unit ~~(10)~~,

- a time-stamping clock ~~(71)~~ adapted to time-stamp these events before storing them in a first memory ~~(73)~~ internal to the management unit ~~(70)~~, and

- a random-access memory ~~(61)~~ containing a preprogrammed

table of actions, associated with the management unit ~~(70)~~ and adapted to assign appropriate actions to events received thereby.

14. (CURRENTLY AMENDED) A management module according to claim 13, characterized in that the data bus ~~(50)~~ is a standard bus selected from the group comprising a PCI bus, a VME bus, a compact PCI bus and a USB bus.

15. (CURRENTLY AMENDED) A management module according to ~~either claim 13 or claim 14~~, characterized in that it further comprises a second memory ~~(74)~~ internal to the management unit ~~(70)~~ for storing events in order to read them via the data bus ~~(50)~~.

16. (CURRENTLY AMENDED) A management module according to ~~any one of claims 13 to 15~~, characterized in that the first memory ~~(73)~~ and the second memory ~~(74)~~ are of the FIFO type.

17. (CURRENTLY AMENDED) A management module according to claim 13, characterized in that the random-access memory ~~(61)~~ containing the table of actions is a double-port RAM.

18. (NEW) A management method according to claim 2, characterized in that:

the timescale of real-time management is of the order of one microsecond;

the independent management module is isolated from the central unit by a bridge;

said action is read in a table of actions associated with

the management unit and is preprogrammed via the data bus;

events received by the management unit are time-stamped to an accuracy of the order of 100 nanoseconds and stored in a second memory associated with the management unit so that these events may be read via the data bus in order to store and monitor these events.

19. (NEW) A management method according to claim 18, characterized in that events received by the management unit are generated by a clock register internal to the management module.

20. (NEW) A management method according to claim 18, characterized in that events received by the management unit come from a unit adjacent the management module.

21. (NEW) A management method according to claim 18, characterized in that events received by the management unit come from an equipment external to the computer system.

22. (NEW) A management method according to claim 20, characterized in that events received by the management unit are synchronized to a frequency corresponding to that of a clock internal to the computer system.

23. (NEW) A management method according to claim 21, characterized in that events received by the management unit are synchronized to a frequency corresponding to that of a clock internal to the computer system.

24. (NEW) A management method according to claim 21,

characterized in that:

events received from the external equipment are filtered to eliminate interference;

the management unit generates an interrupt if it is not possible to associate an event with an action.

25. (NEW) A management module according to claim 14, characterized in that:

it further comprises a second memory internal to the management unit for storing events in order to read them via the data bus;

the first memory and the second memory are of the FIFO type.